The following Frequently Asked Questions are available and updated as needed to assist the public in understanding the reason for the I-495 closure, the plan to reopen the bridge, and the traffic configurations made necessary by the closing.

I-495 Bridge Closure
Frequently Asked Questions

Q. Why is I-495 closed?

A. DelDOT closed the bridge on Monday, June 2, because an inspection showed four of the 37 support columns are tilted as much as four percent out of vertical alignment. This condition has rendered the structure unsafe for the traffic volume that normally crosses the bridge.

Q. What caused the bridge to tilt?

A. Stockpiled dirt that was located near the bridge is suspected of creating lateral subsurface pressure on the bridge pilings. The dirt has been removed by the contractor that stockpiled the dirt and crews from DelDOT. The weight of the dirt pile was estimated to be 50,000 tons. As the soil was being removed, some rebounding (0.26 degrees) of the affected piers to their original alignment was detected. This provides evidence that the weight of the dirt could have contributed to the lateral displacement of the soil.

Q. Was the dirt stockpiled underneath the bridge contaminated?

A. The dirt that was removed from beneath the bridge was tested under the supervision of the Delaware Department of Natural Resources and Environmental Control (DNREC). The tested soil was clean.

Q. What repair work will be necessary to reopen the bridge?

A. The plan to reopen the bridge to traffic calls for the construction of new concrete-filled shafts down to bedrock beneath the columns that have tilted out of alignment. These shafts will create a stable surface above the underlying unstable soil. The concrete shafts will be tied together with a reinforced concrete grade beam. Temporary jacking towers would be erected on the grade beam to restore the bridge's superstructure to its original position, and lift the weight off of the existing, rotated piers. Once the bridge has been rendered safe for traffic, permanent new concrete columns will be erected taking the place of the jacking towers.

Q. When will the bridge reopen?

A. The southbound lanes of the I-495 bridge spanning the Christina River in Wilmington, DE could be open as soon as Labor Day this year, and the northbound lanes would be opened several weeks after that. This schedule is subject to change based on how the work progresses; particularly during the drilling phase of construction.

Q. Were there any alternatives considered?

A. Shoring up the existing bridge was considered, but that option was quickly ruled out because of the poor soil conditions. Another idea was to fully reconstruct this section of the bridge. That option would have delayed the reopening until early 2015, which was not a viable option given the traffic volume the

bridge normally carries.

Q. What will be the cost of repairs?

A. The first phase of construction to re-open the bridge is estimated to cost $20 million. The total cost to permanently fix the problem is not yet certain.

Q. Who will pay for these repairs?

A. Governor Markell has signed a Declaration of Limited State of Emergency in connection with a request for Federal Relief Funds from the Federal Highway Administration. USDOT announced that $2 million of federal emergency funding has been made immediately available for the project. Additional federal funding has been requested.

Q. When was the bridge constructed and when was it last inspected?

A. Bridge 1-813 was built in 1974, is 4,800 feet long with 38 spans. The bridge was last inspected in October 2012, and showed no deficiencies. The dirt stockpiled at the bridge was not present at that time.

Q. Are inspections being done on other bridges throughout the state?

A. Yes, DelDOT routinely inspects all bridges over 20 feet in length every two years.

Of the nearly 1,600 bridges DelDOT maintains, over 500 are beam bridges with supporting columns. To prioritize these bridges for inspection, we identified bridges over 500 feet, and eliminated those bridges that were adjacent to wetlands and those built on embankments. This is because stockpiling is unlikely to occur in these areas. Our inspection of these structures is ongoing. We are also compiling a second list of bridges 200 to 500 feet in length supported by columns that are not near wetlands or on embankments, and will be visiting these structures.

Q. Due to the closure of I-495 what are the lane configurations both northbound and southbound at the I-95 and I-495 split?

A. Northbound I-95/I-495 Split:

* Normal configuration is five (5) lanes: left two (2) lanes are I-95 only, middle lane is a choice lane that accesses both I-95 and I-495, and the right two (2) lanes are for I-495 only.
* Current configuration: The right two (2) lanes are closed prior to the split. The left three (3) lanes (Two lanes to I-95 and the choice lane) are open.

Southbound I-95/I-495 Split:

* Normal configuration is three (3) lanes: The left lane is I-95 only; middle lane is a choice lane that accesses both I-95 and I-495; and the right lane is for I-495/Naamans Road.
* Current configuration: The right lane is closed prior to the I-95/I-495 split. The left two (2) lanes (1 lane to I-95 and the choice lane) are open.

Rationale for the set-up of lanes:
1) To maintain a safe traffic condition it is necessary to funnel traffic onto I-95 at both the northbound and southbound splits. Regardless of how many signs and message boards are put up prior to the closure,

some significant percentage of drivers will not notice these signs and change their route.
2) If we did not use this configuration, some drivers would find themselves (either purposefully or accidentally) in one of the I-495 exit only lanes and realize too late that they needed to merge to the left to stay on I-95. This will create a late merging issue, which is not a safe condition.
3) With I-495 CLOSED, there will be congestion during normal hours of the day on I-95. Having the lane closures at the splits in place helps to "meter" traffic into the I-95 corridor in the Wilmington area, which minimizes the possibility of gridlock conditions in the section from Marsh Road to Frawley Stadium. It also spreads the delay out along the corridor, so motorists may experience some delay at the splits and some delays in other areas (Example: US Route 202). Compressing all of the delays into a single location would create a large traffic backup.

Q. Why is there a lane closure southbound at the I-95/495 split?

A. The lane closure on southbound I-95 in the area of the I-495 split at the PA/DE line serves to provide additional diversion of traffic to I-95 southbound. With the three lane section that exists, the right lane drops onto I-495, the center lane is a choice lane and the left lane drops to I-95. With the lane closure in place, drivers must make a conscious decision to continue south on I-495. We believe that without the lane closure, we would not get as much diversion and we would see increased traffic on the other local roadways including through the City of Wilmington where we are seeing major delays due to detoured traffic. Additional signage and overlays of the existing guide signs are forthcoming and will further assist in diverting traffic and identifying I-495 as a local route, not a through route. We cannot place the lane closure on the left side of I-495 as this would require a center lane closure on I-95 which would create a very unsafe and confusing traffic pattern.